

Int'l Appl. No. : PCT/JP2005/003512
Int'l filing date : March 2, 2005

AMENDMENTS TO THE SPECIFICATION

On page 1 of the Specification, after the Title of the Invention and before the Technical Field starting on line 1, please insert the following section:

RELATED APPLICATIONS

This application is the U.S. National Phase under 35 U.S.C. § 371 of International Application PCT/JP2005/003512, filed March 2, 2005, which was published in a language other than English, which claims priority of Japanese Patent Application No. 2004-101687, filed March 31, 2004.

Please amend the following section as follows:

[0012]

Fig. 1 is a two-dimensional scatter diagram created from results of multivariate analysis in Example 1 (wavenumber region of a spectrum: 5,060 to 4,500 cm^{-1} ; data processing: mean centering, SNV, and secondary differentiation).

Fig. 2 is a two-dimensional scatter diagram created from results of multivariate analysis in Example 2 (wavenumber region of a spectrum: 5,060 to 4,500 cm^{-1} ; data processing: mean centering, SNV, and secondary differentiation).

Fig. 3 is a two-dimensional scatter diagram created from results of multivariate analysis in Example 3 (wavenumber regions of a spectrum: 6,000 to 5,500 cm^{-1} and 5,060 to 4,500 cm^{-1} ; data processing: mean centering, SNV, and secondary differentiation).

Fig. 4 is a two-dimensional scatter diagram created from results of multivariate analysis in Example 4 (wavenumber region of a spectrum: 6,000 to 5,500 cm^{-1} ; data processing: mean centering, SNV, and secondary differentiation).

Fig. 5 is a two-dimensional scatter diagram created from results of multivariate analysis in Example 5 (wavenumber region of a spectrum: 8,000 to 6,000 cm^{-1} ; data processing: mean centering, SNV, and secondary differentiation).

Fig. 6 is a two-dimensional scatter diagram created from results of multivariate analysis in Comparative Example 1 (wavenumber region of a spectrum: 8,000 to 4,000 cm^{-1} ; data processing: mean centering, SNV, secondary differentiation).

Fig. 7 is a two-dimensional scatter diagram created from results of multivariate analysis in Comparative Example 2 (wavenumber region of a spectrum: 4,500 to 4,000 cm^{-1} ; data processing: mean centering, SNV, and secondary differentiation).

Fig. 8 is a two-dimensional scatter diagram created from results of multivariate analysis in ~~Comparative Example 3~~ Example 6 (wavenumber region of a spectrum: 5,060 to 4,500 cm^{-1} ; data processing: mean centering, SNV, and secondary differentiation).

Fig. 9 is a two-dimensional scatter diagram created from results of multivariate analysis in ~~Comparative Example 4~~ Example 7 (wavenumber region of a spectrum: 5,060 to 4,500 cm^{-1} ; data processing: mean centering, MSC, and secondary differentiation).

Fig. 10 is a two-dimensional scatter diagram created from results of multivariate analysis in ~~Comparative Example 5~~ Example 8 (wavenumber region of a spectrum: 5,060 to 4,500 cm^{-1} ; data processing: mean centering, SNV, and primary differentiation).

Fig. 11 is a diagram showing a relationship between a degree of damage of each of multiple untreated hair samples, and a degree of damage of each of samples obtained by applying a permanent treatment and/or a bleaching treatment to the multiple untreated hair samples.

Please amend the following section as follows:

[0057]

~~<Comparative Example 3~~ Example 6

The near infrared absorption spectra of the untreated samples, the three times bleaching treated samples, the 10% permanent treated samples, and the 10% permanent treated + bleaching treated samples out of the hair samples were subjected to data processing for a wavenumber region of 5,060 to 4,500 cm^{-1} . To be specific, after subjecting the spectrum to mean centering, secondary differentiation was performed. The spectra subjected to data processing were subjected to principal component analysis in the same manner as in Example 1.

Fig. 8 shows the scatter diagram created from the obtained results of the analysis. As shown in Fig. 8, the respective sample groups having different contents of treatments were not sufficiently classified.

[0058]

~~<Comparative Example 4~~ Example 7

The near infrared absorption spectra of the untreated samples, the three times bleaching treated samples, the 10% permanent treated samples, and the 10% permanent treated + bleaching treated samples out of the hair samples were subjected to data processing for a wavenumber region of 5,060 to 4,500 cm^{-1} . To be specific, after subjecting the spectrum to mean centering, multiplicative scatter correction (MSC) and secondary differentiation were performed. The spectra subjected to data processing were subjected to principal component analysis in the same manner as in Example 1.

Fig. 9 shows the scatter diagram created from the obtained results of the analysis. As shown in Fig. 9, the respective sample groups having different contents of treatments were not sufficiently classified.

[0059]

<~~Comparative Example 5~~Example 8>

The near infrared absorption spectra of the untreated samples, the three times bleaching treated samples, the 10% permanent treated samples, and the 10% permanent treated + bleaching treated samples out of the hair samples were subjected to data processing for a wavenumber region of 5,060 to 4,500 cm^{-1} . To be specific, after subjecting the spectrum to mean centering, standard normal variate (SNV) and primary differentiation were performed. The spectra subjected to data processing were subjected to principal component analysis in the same manner as in Example 1.

Fig. 10 shows the scatter diagram created from the obtained results of the analysis. As shown in Fig. 10, the respective sample groups having different contents of treatments were not sufficiently classified.

[0060]

<~~Example 6~~Example 9>

The near infrared absorption spectra of the untreated samples, and the 10% permanent treated samples (2 samples), the 3 times bleaching treated samples (3 samples) and the 10% permanent treated + bleaching treated samples (2 samples) were subjected to data processing and principal component analysis in the same manner as in Example 1. Results of the analysis were examined for how the degree of the damage of each untreated sample changed by each treatment. Fig. 11 shows the results.

Int'l Appl. No. : PCT/JP2005/003512
Int'l filing date : March 2, 2005

As shown in Fig. 11, the relationship among untreated samples coincides with the relationship among the samples subjected to each treatment. That is, it can be understood that a hair having a lower degree of damage in an untreated state has a lower degree of damage when subjected to a permanent treatment and/or a bleaching treatment, while a hair having a higher degree of damage in an untreated state has a higher degree of damage when subjected to a permanent treatment and/or a bleaching treatment.

Therefore, the degree of damage of hair after the treatment can be predicted from the evaluating result of the degree of damage in an untreated state. That is, the hair as to its degree of likelihood to be easily damaged by the treatment can be determined.

On page 34 before Claim 1, please amend as follows:

WHAT IS CLAIMED IS:~~CLAIMS~~